

Effects of Electronic Sourcing On Performance of Procurement Function at the County Government of Nakuru

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Abstract: Public procurement plays a significant role in the efficient functioning any Government in the world since they rely on goods and services supplied by individuals. In Kenya, however there has been major complains on the wastage of resources, corruption and the lack of value for money in many government procurements contracts. Research has shown that, electronic procurement provides an alternative to manual procurement in such scenarios. As a result the government through a strategy paper set to implement electronic procurement in all government functions which incorporates: e – sourcing, e – tendering, e – reverse auction as well as e -payments. However, ten years down, most government procurement transactions remain manual and subject to human manipulation at various stages. The general objective of the study is to assess the role of electronic procurement on performance of procurement function in the County Government of Nakuru. This study therefore was meant to assess the e-sourcing practices at the county Government of Nakuru and how they affect the performance of the procurement function. Descriptive research design was used. The study target population comprised of all the 168 staff of procurement function of the County Government of Nakuru from which a sample of 118 was selected using the simple random sampling technique. The study used questionnaires in the collection of primary data. The resulting quantitative data was summarized using descriptive statistics such as mean, mode, standard deviations, frequencies and percentages. Chi-square analysis was then done to assess the association between e-sourcing and procurement efficiency. The study realized that the concept of e-sourcing has been adopted in the procurement function of the County Government of Nakuru. However it has not been fully implemented thus the full benefits thus the full benefits of e-sourcing have not been realized. The county government of Nakuru and other state organs should therefore take up the role of ensuring full implementation of e-sourcing and digitization of all government transactions within the county to enhance efficiency in discharge of their duties.

Keywords: Efficiency, E – Sourcing, Procurement, Procurement function

I. Introduction

According to the Public Procurement and Disposal Act (PPDA) Act (2005) of Kenya, the procurement departments are charged with the responsibility of acquisition by purchase, rental, lease, hire purchase, license, tenancy, franchise, or any other contractual means, of any type of works, services or supplies or any combination. Electronic Procurement (E-Procurement) on the other hand is concerned with the use of electronic technology in the acquisition of goods and services. E - Procurement according to Bailey (2008) can be classified into the seven categories: Web-based ERP which deals with creating and approving purchasing requisitions, placing purchase orders and receiving goods and services by using a software system based on Internet technology. The second is Maintenance, Repair and Operations which deals with creating and approving purchasing requisitions, placing purchase orders and receiving non-product related MRO supplies. The third type of e-procurement is E-sourcing which entails identifying new suppliers for a specific category of purchasing requirements using Internet technology. E-tendering involves sending requests for information and prices to suppliers and receiving the responses of suppliers using Internet technology while E-reverse auctioning uses internet technology to buy goods and services from a number of known or unknown suppliers. The sixth type is E-informing which involves gathering and distributing purchasing information both from and to internal and external parties using Internet technology. The last type of E - procurement, according to Bailey (2008), is E-market sites. Here, buying communities can access preferred suppliers' products and services, add to shopping carts, create requisition, and seek approval, receipt purchase orders and process electronic invoices with integration to suppliers' supply chains and buyers' financial systems. In the current study, E- Payments have been added as they constitute a significant role in the procurement process.

Kenya recognized the importance of ICT by launching an ambitious three year (2003 – 2007) e – Governance strategy. The strategy was designed to ensure: efficiency delivery of government information and services to the citizens, to promote productivity among civil servants, to encourage participation of citizens in

Government. When first ICT policy was developed in 2006, its main objective was to make government more result oriented, efficient and citizen centered.

Since then, Kenya has been implementing broad based public reform program partly founded on the e-governance vision articulated in 2004. The policy documents details a number of initiatives aimed at improving the interaction between government and businesses and between government and citizens (Bwalya & Zulu, 2012). Accountability in the public procurement system in Kenya in the past decade, has undergone significant changes. From a system with no regulations in the 1960s, to a system regulated by Treasury Circulars in the 1970s, 1980s and 1990s, and finally the introduction of the Public Procurement and Disposal Act (PPDA) of 2005 and the Procurement Regulations of 2006 setting new standards for public procurement in Kenya.

The purpose of the Public Procurement and Disposal Act as set out in the legislation is to establish procedures for procurement and the disposal of unserviceable, obsolete or surplus stores and equipment by public entities to achieve four objectives: to maximize economy and efficiency; to promote competition and ensure that competitors are treated fairly; to promote the integrity and fairness of those procedures; to increase transparency and accountability in those procedures; to increase public confidence in those procedures; and to facilitate the promotion of local industry and economic development. Public procurement in Kenya has been largely manual. In 2007 the Public Procurement Oversight Authority (PPOA) estimated that procuring entities were buying at an average of 60% above the prevailing market price, an indicator that public procurement in Kenya did not receive the benefit of competitive procurement. The scenario is not unique to Kenya.

Statement of the Problem

Public procurement in Kenya plays a significant role in the efficient functioning of the Government. However there has been major complains on the wastage of resources, corruption and the lack of value for money in many government procurements in county governments despite the existence of guiding laws and regulations. According to Kenyan E - Government strategy paper (2004), E - procurement was one of the medium term objectives which was to be implemented by June 2007 to enhance efficiency in delivery of public services procurement being one of them. It was estimated that 60% of the government operations will be through electronic media. However according to the (PPOA, 2013) most of the procurement processes in public sector were still manual with the internet only being used for e-mails and web browsing. The government emphasized on the use of E - procurement platform in March 2015 to help in solving this problem and in helping the county to achieve efficiency in the utilization of public resources. However, little research attention has been done to introduce the use of E – procurement in most government offices. Claims on massive losses of public resources through procurements as well as irregular award of government tenders still persist especially in county governments in Kenya. Further there have been no comprehensive studies to assess the usage of E – sourcing in county governments and its effect on efficiency of procurement. If well utilized, E - sourcing would enhance efficiency in utilization of funds, shorten lead times, accountability and efficiency in the delivery of public services. This study sought to assess the electronic platform in sourcing on efficiency of procurement in the County Government of Nakuru, Kenya.

Research Objectives

To assess the influence of E-sourcing on performance of the procurement function at the County Government of Nakuru.

Research Hypothesis

H₀: E-sourcing does not have a significant influence on performance of the procurement function at the County Government of Nakuru

H₁: E-sourcing has a significant influence on performance of the procurement function at the County Government of Nakuru

Justification of the Study

The Kenyan Government in the past three years has come under sharp criticism on the amount of public resources lost through corruption in procurement deals. The National Youth Service, government parastatals such the Kenya pipeline, Geothermal Development Company and the county governments are worst affected. These continue to happen amidst the government's efforts to introduce E - procurement and IFMIS. The government's goal in introducing these online platforms was to enhance efficiency especially in the utilization of public resources in procurement. The study therefore sought to assess whether these efforts have borne fruit in enhancing procurement efficiency in county Governments.

II. Methodology

Research Design

This study has used descriptive research design. The study was been quantitative in nature in that it has sought to quantify the e sourcing practices in relation to the overall efficiency of the procurement function of the county governments. Comparison of variables has been done quantitatively using a multiple regression analysis. Opinions on the adoption of e procurement have been quantified using five point likert scales. Primary data has been collected by use of research questionnaires.

Target population

The target population for the study comprised of all the staff of procurement function of the County Government of Nakuru. In total, the procurement function comprises of 168 staff including those positioned in strategic functions and departments and the 11 sub county offices.

Sample and Sampling Method

The sample size was determined using the formular by Fisher et.al (1998). The appropriate sample size for the study obtained was $S = 118$. Simple random sampling technique was used to select the elements into the study sample as this techniques enabled all the subjects to have an equal chance of being selected.

Research Instruments

The study used the questionnaire as a tool in the collection of primary data. The questionnaire was based on themes based on the usage and outcomes of usage of e-sourcing on procurement efficiency. These opinions were measured using a five point likert scale.

Data Collection Procedure

In collecting the data, the researcher first acquired permission from the County Secretary office in the County Government of Nakuru to obtain authority to conduct the study and to obtain the sampling frame. The researcher then proceeded to individuals selected for actual data collection. Upon the appointments the researcher explained the need for the study to the selected respondents before issuing questionnaires. Questionnaires were issued on drop and pick later basis where respondents were given a duration of two weeks to fill before they were collected.

Data Processing and Analysis

Data collected was coded and analyzed using Statistical Package for Social Sciences (SPSS) Version 21 computer programme to facilitate addressing the research objectives and hypothesis. Quantitative data was summarized using descriptive statistics which include mean, mode, standard deviations, frequencies and percentages. Chi square analysis was used to test the study hypothesis by observing any significant association between the use of e-sourcing and procurement efficiency.

III. Findings and Discussions

The objective of the study meant to determine the level of application of e-sourcing in the County Government of Nakuru and determine whether this significantly influenced procurement performance. The procurement staff were then asked to rate their departments on the level of application of e –sourcing as shown in the following presentations. Table1 presents the findings on how procurement staff rates the extent to which county government embraced e sourcing.

Table 1: Extent to which county government embraced e sourcing

Extent of embracing E- sourcing	Frequency	Percent
Not at all	2	2.1
To a less extent	9	9.3
Moderate Extent	28	28.9
To a large extent	41	42.3
Very Large extent	17	17.5
Total	97	100.0

As seen on Table 1 majority of the staff believe that the county government has embraced the concept of E – Sourcing seriously. This can be seen from the 42.3% who indicate that e-sourcing has been embraced to a large extent while 17.5% cite very large extent. Moderate extent was rated at 28.9% while those with contrary opinion formed a minority of respondents. The rating on the level of adoption of e-sourcing in various procurement functions are presented on Table 2. Similar rating on adoption of e-sourcing was observed in a study conducted by the University of the West of England (2012) among public and private sector organizations

in the UK which found out that e-sourcing tool seemed to have reached a stage where they were accepted as an aid to the procurement process in more than half of public and private sector organizations surveyed. These were measured on a five point scale of 1 – 5 and the average rating computed and presented as shown.

Table 2: Rating on Adoption of E- Sourcing

	N	Min	Max	Mean	Std. Dev
a. Supplier identification	97	1	5	3.79	1.08
b. Online negotiations	97	1	5	3.43	1.05
c. Contract monitoring	97	1	5	3.34	1.08
d. Internal coordination	97	1	5	3.52	0.99
e. Relationship management	97	1	5	3.23	1.18
f. Communicate with potential suppliers	97	1	5	3.52	1.27
g. competence analysis	97	1	5	3.31	1.18
h. Specification	97	1	5	3.38	1.13
i. Spend analysis	97	1	5	3.08	1.35

Mean = 3.40, Std. Dev = 0.89

Overall, procurement staff of the county government of Nakuru rated their department fairly in the adoption of E- Sourcing at Mean = 3.40, Std. Dev = 0.89. The areas in which the county was rated fairly well in adoption of E – Sourcing include in the supplier identification (Mean = 3.79, Std. Dev = 1.08), followed by communication with suppliers Mean = 3.52, Std. Dev = 1.27 and the internal coordination of the procurement functions Mean = 3.52, Std. Dev = 0.99. The county also performed online negotiations with potential suppliers rated on average of Mean = 3.43, Std. Dev = 1.05, determination of specification of goods and services Mean = 3.38, Std. Dev = 1.13. Other areas in which the county procurement departments used e sourcing at an average were in contract monitoring, supplier’s relationships management, supplier competence analysis and in spend analysis for the county Government. In their opinion procurement staff felt that the adoption of E – Sourcing contributed to the efficiency of procurement as shown on Table 4.9

Extent to which e - sourcing enhanced Procurement efficiency

	Frequency	Percent
Not at all	4	4.1
To a less extent	4	4.1
Moderate Extent	33	34.0
To a large extent	33	34.0
Very Large extent	23	23.7
Total	97	100.0

It was the view of the procurement staff at the county government of Nakuru that adoption of e – sourcing contributed towards enhancing the procurement performance at the county government of Nakuru since 34.0% rated the contribution moderately, 34.0% to a large extent while 23.7% indicated they have seen improvement to a very large extent.

Procurement Efficiency

The objective of the study was to assess the effects of e-sourcing on performance of the procurement function of the county government of Nakuru. Therefore the dependent variable of the study was the procurement performance which in the study was assessed based on the rating on procurement efficiency. The findings on the procurement efficiency of the Country government of Nakuru is shown on Table 3.

Table 3: Procurement Efficiency at the County Government of Nakuru

	N	Min	Max	Mean	Std. Dev
Achieving low cost in procurement transactions	97	1	5	3.64	1.02
Cost of running the procurement function	97	1	5	3.69	0.93
Timely delivery of goods and services to user departments	97	1	5	3.57	0.96
Quality of supplies	97	1	5	3.44	0.91
Buying from unintended suppliers	97	1	5	3.28	1.11
Tracking procurement transactions	97	1	5	3.54	1.10
Efficiency in connecting to new suppliers	97	1	5	3.41	1.25
Communication with suppliers and user departments	97	1	5	3.42	1.26

The procurement staff rated their function average on most of the performance parameters surveyed. The cost of running the procurement department was rated fairly good at (Mean = 3.69, Std. Dev = 0.93) as well as the achievement of low cost in procurement transactions (Mean = 3.64, Std. Dev = 1.02) which implies that the staff were of the opinion that the cost of running the procurement function was lower as a result of the

adoption of e-procurement tools. The timely delivery of goods and services to user departments was also rated fairly well at (Mean = 3.57, Std. Dev = 0.96). Similarly eases of tracking of procurement transactions was rated on average following the implementation of e-procurement (Mean = 3.54, Std. Dev = 1.10). The quality of supplies, communication with suppliers and user departments and efficiency in connecting to new suppliers were also rated fairly as shown in Table 3.

Hypothesis Testing

The hypothesis stated that:

H₀: E-sourcing does not have a significant influence on performance of the procurement function at the County Government of Nakuru

H₁: E-sourcing has a significant influence on performance of the procurement function at the County Government of Nakuru

These hypotheses were tested by subjecting the results on the application of e-sourcing and the rating on procurement performance of the County Government of Nakuru to a Chi Square test to determine whether there was a significant association between the two variables. Results of the tests are presented on Table 4.

Table 4: Chi Square on e – sourcing and procurement Performance

	Value	df	Asymp. Sig. (2-sided)
Chi-Square	870.768 ^a	676	.000
Likelihood Ratio	361.531	676	1.000
Linear-by-Linear Association	64.961	1	.000
N of Valid Cases	97		

a. 729 cells (100.0%) have expected count less than 5. The minimum expected count is .01.

The test results on Table 4 reveal a significant association between the rating on application of e – sourcing and the rating on procurement performance ($\chi^2 = 870.77$, $P < 0.05$). This means that variation in e – sourcing would significantly affect the procurement performance at the county government. Thus the study rejected **H₀** and accepted **H₁**: E-sourcing has a significant influence on performance of the procurement function at the County Government of Nakuru. This finding was in agreement with Thawiwinyu and Laptaned (2009) who in assessing the impact of strategic sourcing and E - procurement on supply chain performance management revealed that, business accepted strategic sourcing as an effective initiative in improving purchasing and firm level performance. Moreover, firms that implemented strategic sourcing experienced a significant improvement in their supply chain performance management, specifically in terms of responsiveness and satisfaction of customer.

IV. Conclusions

The concept of e-sourcing has been adopted in the procurement function of the County Government of Nakuru. However it has not been fully implemented thus the full benefits of e-sourcing have not been realized although the current efforts have shown a significant effect on procurement efficiency. State corporations in the developing economies should take up the role of ensuring full implementation of e-sourcing tools which allow for easy identification and engagement with suppliers as well as customers owing to the benefits they present in efficiency.

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